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A new species of the genus *Brachagenius* Kraatz (=*Xiphoscelidus* Péringuey syn. nov.) with notes on the synonymy of *Elpidus hopei* (Burmeister) (Coleoptera: Scarabaeidae: Trichiinae).

by

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Brachagenius oculatus **sp. nov.** is described and compared in a key to other members of the genus. *Xiphoscelidus* Péringuey is synonymized with *Brachagenius*, resulting in *Brachagenius lugubris* (Péringuey) **comb. nov.** *Brachagenius lineatipennis* Kraatz, formerly considered as a synonym of *B. pictipennis* Kraatz, is a synonym of *Elpidus hopei* (Burmeister). Both genera are briefly diagnosed and each species is figured.

INTRODUCTION

The genus *Brachagenius* was described by Kraatz (1890) and included two new species from the Cape Province, *B. pictipennis* and *B. lineatipennis*. Péringuey (1907) simply translated the original German text to English as he had not encountered either species. From the descriptions he speculated that these taxa were actually the male and female of the same species. In the same work, Péringuey (1907) described the genus *Xiphoscelidus* to accomodate the species *Stegopterus lugubris* Péringuey (1888). Schenkling (1922) considered *B. lineatipennis* Kraatz as the female of *B. pictipennis* Kraatz.

I was able to study a number of undetermined Trichiinae from southern Africa in the collection of the Transvaal Museum (TM). This material included *B. pictipennis*; although the type was not available for study, the original description and accompanying figure are quite adequate for determination of this distinctive species.

Examination of the type of *S. lugubris* Péringuey from the South African Museum (SAM), along with additional material housed in the National Collection of Insects (NCI), Pretoria, proved this species to be congeneric with *Brachagenius*.

In addition, the figure and description of *B. lineatipennis* agree perfectly with the female of *Elpidus hopei* and consequently *B. lineatipennis* should be considered as a synonym of this species and not of *B. pictipennis*.

Brachagenius and *Elipidus* are both restricted to the western and southern Cape Province. They may be distinguished from other trichiine genera in southern Africa by the presence of the enlarged metafemora and apical metatibial projections in the males.

Elpidus differs from *Brachagenius* by its glabrous dorsum, the tarsal segments not laterally compressed, the metatibiae of the males with projections shorter than either of the two apical spurs, and by the presence of pygidial muculae in the males. In

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Brachagenius, the dorsum is covered with scattered erect setae, the tarsal segments compressed laterally, the metatibiae of the males possess projections much longer than the single apical spur, and by the immaculate pygidium in the males.

Material deposited in my collection is followed by the abbreviation (AVEC).

Genus *Elpidus* Péringuey

Elpidus Péringuey, 1907, 319.

Type-species: *Xiphoscelis hopei* Burmeister, 1842: 614, by monotypy.

Diagnosis: Anterior clypeal margin moderately to deeply emarginate, angles sharply rounded to angulate; anterior and posterior pronotal angles obtuse, distinctly angulate, disc coarsely contiguously punctate, glabrous; elytra glabrous; propygidium not covering the base of the pygidium; pygidium rugose, glabrous, maculate in males only; protibiae of male and female tridentate; metafemora of both males and females swollen; metatibiae with apices slightly produced in males, truncate in females, with two movable spurs.

Elpidus hopei (Burmeister), Figs 1, 2, 9

Xiphoscelis hopei Burmeister, 1842: 614.
Elpidus hopei, Péringuey 1907: 319.
Brachagenius lineatipennis Kraatz, 1890: 408; Péringuey 1907: 307; Schenkling 1922: 10. **syn. nov.**

Type: Holotype male, "Süd-Afrika", Univ. of Halle (not examined).

Diagnosis: 10,0–11,0 mm long. Aside from the generic characters listed above, *E. hopei* may be distinguished from other southern African Trichiinae by the testaceous elytra, piceous apical and sutural margins, and the oblique piceous band reaching from the humerus to the elytral declivity, not reaching the apical margin. The head, pronotum, pygidium, and venter are either piceous or rufous, regardless of sex. In addition to the transverse pair of white maculae at the base of the pygidium, males may be distinguished from females by the antennal club slightly longer than the pedicel, larger metafemora, prescence of a short apical metatibial process, longer narrower tibial spurs, and a ventral abdominal convexity.

Material examined: 16 (TM). SOUTH AFRICA: Cape Province; Swartbergs, Hagas farm, 1050 m, 33,24 S–22,46 E, 2–III–1979, E-Y: 1555, in sandy valley, leg. Endrödy-Younga.

Genus *Brachagenius* Kraatz

Brachagenius Kraatz, 1890; 399.
Xiphoscelidus Péringuey, 1907: 320. **syn. nov.**

Type-species: *Brachagenius pictipennis* Kraatz, by present designation.

Diagnosis: Anterior clypeal margin moderately emarginate, angles rounded; anterior pronotal angles obtuse, round, posterior angles obscure, broadly rounded; pronotal disc coarsely continguously punctate, punctures alveolate, setigerous, alutaceous; elytra with rows of short erect setae; distal margin of propygidium produced, extending over base of pygidium; pygidium scabrously punctate with scattered erect setae, never

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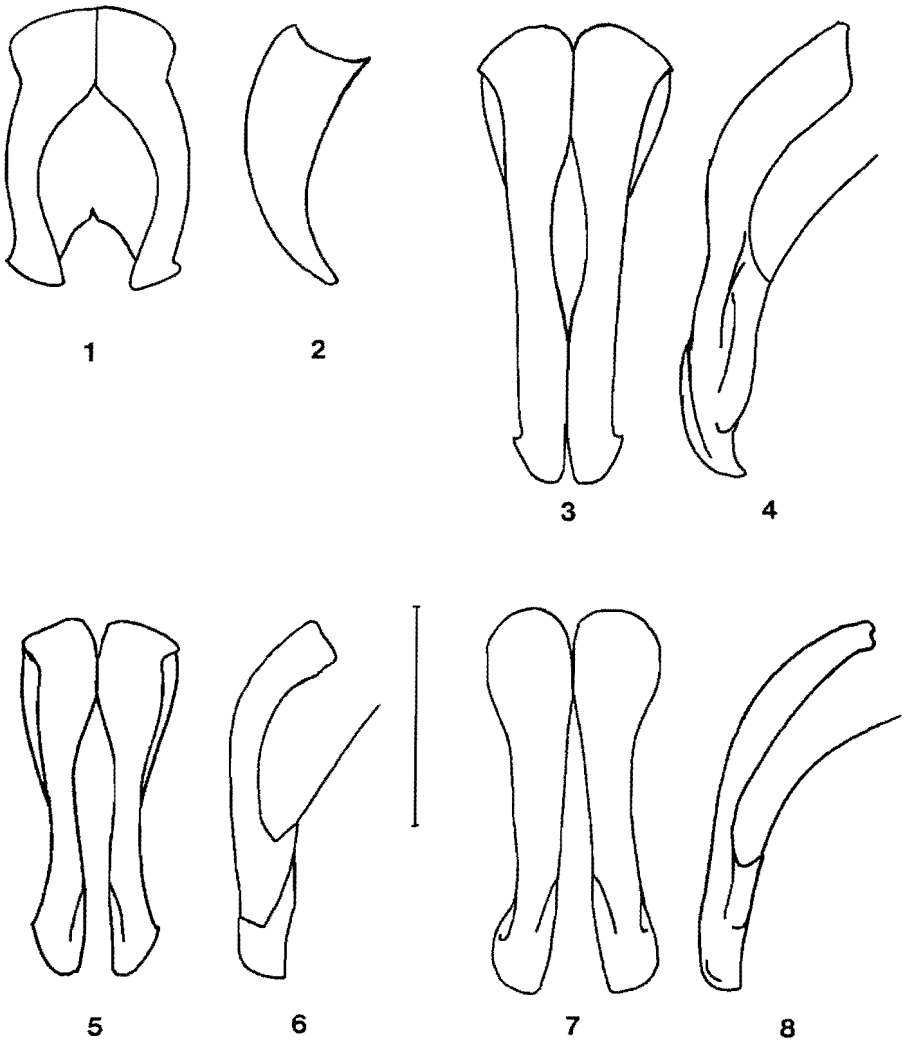

Figs 1–8. Male parameres, frontal and dorsal aspects. 1–2. *Elpidus hopei* (Burmeister). 3–4. *Brachagenius oculatus* **sp. nov.** 5–6. *B. pictipennis* Kraatz. 7–8. *B. lugubris* (Péringuey) (scale bar = 1 mm).

maculate; protibiae of male and female tridentate; metafemora of male greatly enlarged, in female swollen (only the female of *B. lugubris* is known); metatibial apices of male much longer than single metatibial spur; female metatibial apices truncate with two spurs.

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Key to the species *Brachagenius* Kraatz

1 Elytra punctostriate, punctures variolate; each elytron with an eye spot; pronotal and pygidial setation dark, sparse ..... *B. oculatus* sp. nov.
— Elytra not punctostriate, with scattered variolate punctures; each elytron with an oblique piceous band; pronotal and pygidial setae pale 2
2 Elytra testaceous with an oblique piceous band and a triangular piceous patch ..... *B. pictipennis* Kraatz
— Elytra greyish-black with a broad oblique piceous band only ..... *B. lugubris* (Péringuey)

Brachagenius oculatus sp. nov., Figs 3, 4, 10

Diagnosis: 11,0–12,0 mm in length; head, pronotum, scutellum, and venter piceous; elytra velvety black with a testaceous patch between the elytral margin and humerus and a larger testaceous patch between the humerus and scutellum; distal third of basal testaceous patch black, shining, occasionally with another small testaceous patch distally.

Description: Head with lateral clypeal margins moderately anterior margin sharply reflexed; clypeal disc, frons, and vertex coarsely setigerously alveolate. Pronotum with marginal bead entire; discal surface coarsely setigerously alveolate, more distinctly so then head; posteromedian of disc shallowly impressed. Scutellum broad as long, alutceous, a coarsely punctured, setigerous at base, apex broadly rounded. Elytra testaceous and eye spots finely alutaceous, humeri scabrous, shining, remaining surface more coarsely alutaceous; punctostriate, punctures variolate, interstriae setigerous with smaller scattered variolate punctures. Pygidium finely granulate with scattered erect piceous setae. Male genitalia as in Figs 3 and 4. Female unknown.

MATERIAL EXAMINED: Holotype male: SOUTH AFRICA: Cape Province; Swartbergs, Hagas Farm, 1050 m, 33,24 S–22,46 E, 2–III–1979, E-Y: 1555, in sandy valley, leg. Endrödy-Younga (TM); 4 paratypes, same data as holotype (AVEC, TM).

Biology: The type-locality is on the north slope of the Swartberge, separated from the Karoo by the narrow Droëkloofberge. Although the surrounding area consists of dry fynbos, the majority of individuals were collected on a disturbed patch of coarse sand. The beetles were encountered resting on the ground or flying rapidly in a direct manner approximately one metre above the surface. Individuals disturbed in flight dropped readily to the ground. All specimens were collected during midday with the ambient temperature around 25–27 °C. (Endrödy-Younga, pers. comm.)

Elpidus hopei and *B. oculatus* are sympatric at this locality and the above remarks apply equally to both species.

Péringuey (1907) speculated that both *E. hopei* and *B. lugubris* are termitophilous but did not provide any basis for this assumption.

Brachagenius pictipennis Kraatz, Figs 5, 6, 11

Brachagenius pictipennis Kraatz, 1890: 409; Péringuey, 1907: 306.

Type: Holotype male, Cape Province, Humboldt Univ. (not examined).

Diagnosis: 9,0 mm long. Head and pronotum with fine pale setae; elytra testaceous with lateral, apical, and sutural margins piceous, an oblique piceous band reaching from the humerus to the piceous apical margin, and a median triangular piceous patch; pygidium with pale erect setae. Male genitalia as in Figs 5 and 6.

Figs 9–12. Males. 9. *Elpidus hopei* (Burmeister). 10. *Brachagenius oculatus* **sp. nov.** 11. *B. pictipennis* Kraatz. 12. *B. lugubris* (Péringuey) (scale bars = 1 mm).

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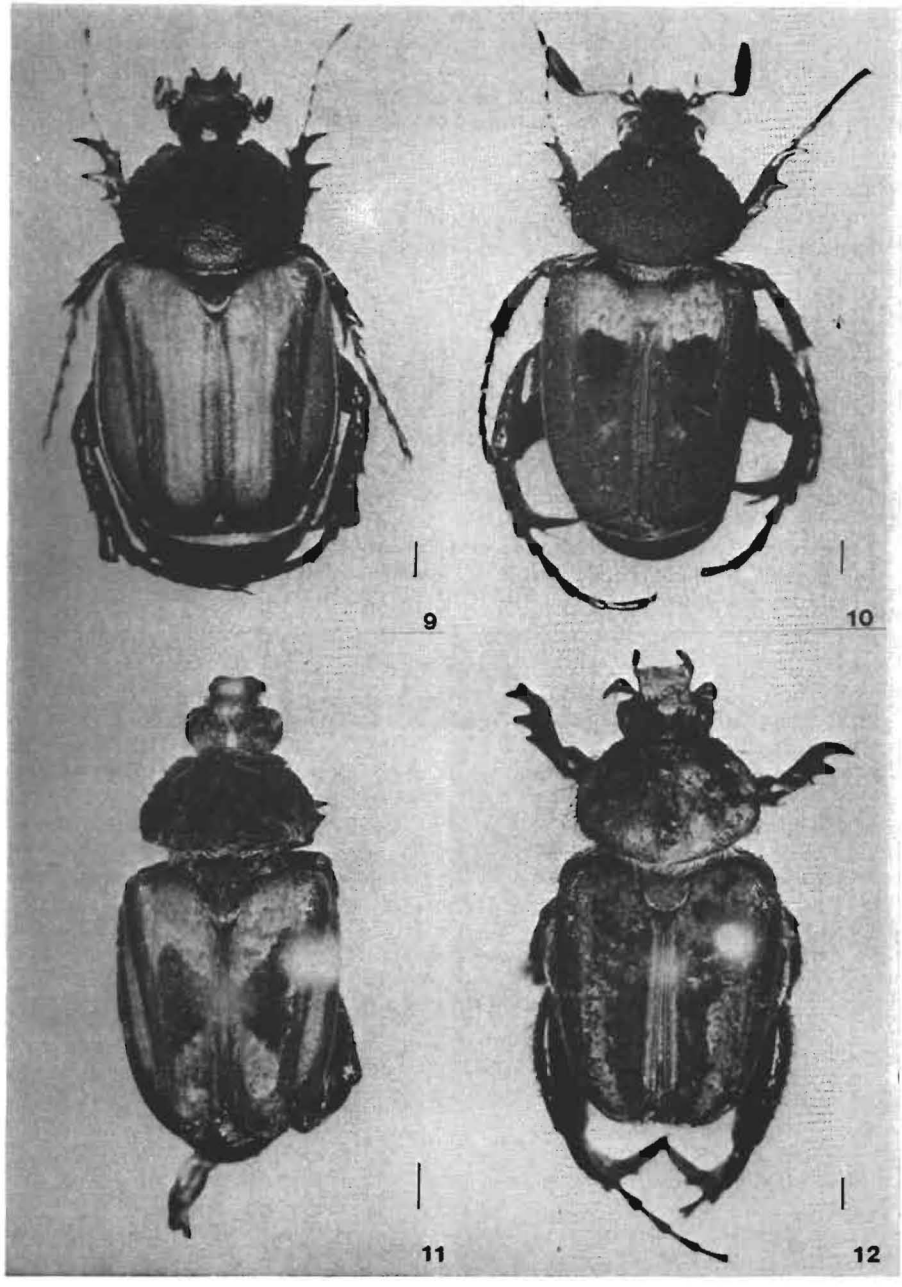

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MATERIAL EXAMINED: 1 (TM). SOUTH AFRICA: Cape Province; Namaqualand, Nuwerust Farm, 31.04 S–18.17 E, 22–VIII–1979, E-Y: 1576, singled, red sand, leg. Endrödy-Younga.

Brachagenius lugubris (Péringuey) **comb. nov.**, Figs 7, 8, 12

Stegopterus lugubris Péringuey, 1888: 105.
Xiphoscelidus lugubris, Péringuey, 1907: 321.

Diagnosis: 10,0–12,0 mm long. Head and pronotum with moderately dense fine pale setae; elytra greyish-black with an oblique piceous band; pygidium with pale erect setae.

MATERIAL EXAMINED: Holotype female, Cape Province, Stellenbosch (SAM). Additional material examined: 5 (NCI). SOUTH AFRICA: Cape Province, Stellenbosch.

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